Agricultural Land Commission

DRAFT STAFF REPORT
BARNSTON ISLAND ACCESS FOR AGRICULTURE

January 5, 2005

1. Report Objective

The objective is to report to the Agricultural Land Commission on the access issues for agricultural businesses on Barnston Island and how these issues might be resolved.

Following tabling of the ALR exclusion application submitted by the Barnston Island Majority Landowners and Residents Committee in July 2004, the Commission asked staff to "develop an action plan to implement a material improvement to the access problem for agriculture on Barnston Island". The working committee, comprised of ALC staff (Julie Glover) and GVRD staff (Kris Nichols) met with staff of the Marine Branch of the Ministry of Transportation (Nancy Merston, Rick Thomson) to discuss the current ferry service and options for improving the service. The Committee also met with the Katzie Indian Band to discuss their issues with access to the Island. Julie Glover met with 4 major agricultural businesses on the Island; these findings are summarized under item 4 in the report. GVRD hosted a public meeting, attended by Julie, on Dec. 8th at Tynehead Community Centre to discuss the various access issues including emergency access to the Island.

This report summarizes the research and public consultation by ALC staff working with GVRD staff. GVRD staff is making a separate report on multiple access issues to senior management of the GVRD and the Communities Committee of the GVRD Board.

2. Summary of Access Issues for Farm Businesses

The ferry service to Barnston Island is the responsibility of the Marine Branch of the provincial Ministry of Transportation. Western Pacific Marine Ltd. provides the service under a 4 year contract valued at $2.75 million, which works out to an average hourly rate of $105. The toll free service is 'on demand' which means that the ferry operates when traffic is at the terminal between 6:20 AM and 11:55 PM weekdays / 12:55 AM weekends. The Barnston Island ferry is a barge that is powered by a tugboat operated by 2 crew members. The barge is owned by the Ministry of Transportation and the tug is owned by Western Pacific Marine Ltd.

2.1 Ferry Capacity (# of vehicles and weight)

The current ferry capacity is 5 - 6 cars or a maximum gross vehicle weight of 50 tonnes. The largest truck currently using the ferry is 36 tonnes loaded (Bradner Farms). When carrying a large truck, only 1 or 2 additional cars (or none) may be carried at the same time, depending on the overall weight of the load.

Issues summary:

- Maximum barge/ferry capacity is 50 tonnes (gvw) and ramp capacity is 40 tonnes
- Maximum truck length is 54 feet
- Current gvw and maximum length meet the needs of the current operations but limit use of larger trucks
- When a truck or the school bus is on the ferry, the number of cars is limited, leading to longer ferry waits for other passengers particularly at peak times (early morning and late afternoon)
- Avalon Dairies now has 10 truck loads a day from the Island (20 return trips); this is increasing ferry lineups and waiting times for residents

2.2 Hours of Operation

Hours of operation are currently 6:20 AM to 11:50 PM weekdays (17.5 hours) and 6:20 AM to 12:50 AM Friday through Sunday (18.5 hours).

Issues summary:

- First ferry at 6:20 AM prevents earlier start time for farm workers, and earlier product transport (e.g. milk truck) from the Island
- Likewise, weekday last sailing at 11:50 PM restricts late farm business traffic
- Emergency service is provided during hours ferry does not operate, but there is a time lag in getting staff to the ferry

2.3 Back-On/Back-Off Configuration

Currently all drivers must back off the ferry when it arrives at Barnston Island and must back onto the ferry departing the Island. The tug turns the barge around once underway.

Issues summary:

- Back on configuration increases trip return time (reducing frequency of service)
- Backing on and off increases risk of a mishap (several vehicles have slipped off the ramps)
- Backing a large truck or truck and trailer is sometimes difficult and can be unsafe
- There is a blind spot for drivers when backing off on the Island side which is a significant safety issue

2.4 Ramps and Access

Ramps on both the Port Kells and Island sides are constructed of wood with metal mesh to provide traction. On the Port Kells side, the ramp is constructed on pilings in the river with a curve in the access leading to the ramp. Wooden railings extend only part way down the ramp on this side. On the Island side, the ramp is constructed on the bank and the barge rides up on the ramp for unloading. There are minimal railings at this location.

Issues summary:

- Current ramp capacity is 40 tonnes which limits vehicle size/weight (ferry capacity is 50 tonnes so ramps are more limiting)
- Ramps are slippery when wet or frosty creating significant safety concerns
- At low tide, the angle is amplified, and heavily loaded trucks or cars scrape the ramp when backing on or off
- Mesh on the ramps becomes damaged and punctures tires
- Some residents have suggested that recent increased truck traffic is degrading or damaging the ramps.

2.5 Emergency Access

Emergency access to the Island is provided outside the core level of service (i.e. between 11:50 PM to 6:20 AM) by ferry staff that are on call for emergencies. There is currently no fire protection provided for the Island, however, the Surrey Fire Department has responded to three fires on the Island in the last four months.

Issues Summary:

- Fires occurring between 11:50 PM (12:50 PM weekends) and 6:20 AM can burn out of control before ferry staff are called out to start up the ferry and fire trucks can reach the Island
- The lack of fire protection, translates to difficulties obtaining and continuing fire insurance for farm buildings and dwellings
- Fire insurance for farm businesses, when purchased, is at a high cost
- Other emergencies such as ambulance services for injured workers or residents, face similar problems

3. Summary of Access Issues Identified in ALR Application

Barnston Islar t Majority Landowners and Residents Committee ALR application cites the following access issues to the Island:

- No evening access (i.e. between the hours of 12:50 AM and 6:20 AM)
- No fire protection
- No police protection
- No water resources (for personal or farm use)
- No sewer
- No ferry safety (safety rails/guards i.e. on ramps)

The submission states that the "lack of adequate access interferes with the social and economic livelihood of the people on Barnston Island". Examples are provided of an accident on the ramp and the burning of a barn (August 1988) where emergency fire services were unable to reach the fire until over an hour after the call was placed.

4. Summary of Consultations With Individual Farm Operators

Four operators of large commercial farms on the Island were interviewed for the report. There are other, smaller scale farms on the Island, some of which lease or rent land to other operations.

4.1 Avalon Dairies / Bradner Farms

- Existing ferry service is sufficient for the current size of the operation
- Hours of operation – currently milking 6:30 AM to 10:30 AM and 6:30 PM to 10:30 PM; would like longer ferry hours; specifically, would like earlier ferry service starting at 5:20 AM and also later on weekdays to 12:50 AM
- Maximum vehicle weight – currently 50 tonnes for ferry; 40 tonnes for ramps; ferry does not handle larger trucks, cattle haulers; would like larger ferry to handle 66 foot truck; current milk truck weighs 32 tonnes loaded; cattle truck weighs 36 tonnes loaded
- Line-ups – current ferry size permits 1 dairy truck with no cars, leading to traffic line-ups at peak periods; Bradner Farms currently runs approx. 10 trucks a day (20 ferry trips) to Barnston
- Drive on / back off configuration – this is a time and safety issue of primary concern to trucks; would like drive on / drive off

- Ferry ramps – current wooden ramps are very narrow and slippery when frosty; there is a blind spot when backing off the ramp on Barnston side which is dangerous; ramps need to be upgraded to handle at least 50 tonnes gvw (operator has modified truck with rollers at rear so truck bumper does not scrape ramp when backing off at low tide)

4.2 Opus Cranberries

- The existing ferry service is fundamentally adequate for the current farm business needs
- Drive on / back off configuration – this is a time and safety issue for truck drivers; a priority for this operation to have drive on / drive off
- Maximum vehicle weight – ferry handles current truck now being used ; current truck is 40 +/- feet long; larger ferry capacity would be helpful when operation is at full production
- Ferry ramps - currently maximum ramp capacity at 40 tonnes limits truck size/weight; ramps could be improved (e.g. replace wood decking with concrete)
- Hours of operation – current hours of operation are adequate; farm business owner is neutral on schedule adjustments that would provide earlier sailings starting at 5:20 AM

4.3 Barnston Island Herb Farm

- Ferry limits accessibility by staff who live off island; hiring new staff is extremely difficult with the current ferry service
- Safety of employees; costs / time for emergency services
- Costs to business with ferry delays; early morning line-up; heavy trucks limited to high tide (due to ramps); ferry delays due to tug engine breakdowns, mechanical breakdowns, other river traffic, winter ice etc.
- Metal mesh on wooden ramps has caused as many as 5 flat tires on delivery truck in 1 week
- Generally ferry service increases costs to business; operator would like 24 hour ferry service or a bridge and would consider contributing to the costs of a fixed link

4.4 Gilmore Farm

- Ferry capacity: ferry cannot accommodate a 57 foot truck and trailer for hauling cattle; need to do multiple loads
- Cattle spend longer in the truck, with greater potential for stress
- Cattle can 'go down' in the truck when truck backs on the ferry with resulting possible loss of the animal
- Deliveries for supplies (feed, chicken manure, sawdust, concrete, gravel etc.) have $20 - $30 premium per load because of the ferry
- Ferry ramps: trucks with trailers, horse trailers etc. bottom out on ramps while driving and backing on/off the ferry, particularly at low tide
- Ramp safety: lack of railings on ramp (island side); trucks and campers have gone off ramp; backing off ramp is dangerous, more so for trucks with limited visibility
- Back on / back off configuration: many customers will not come to Island because of ferry and ramps (perceived waits and dangerous ramps); 50% responding to ads recently did not want to drive to Barnston to pick up product
- Breeding stallion on the Island not an option with ferry service; customers do not want to risk transporting horses on the ferry

- Ferry delays caused by mechanical breakdowns, maintenance (routine and other), industrial and fish boat river traffic (delays add to costs of deliveries and supplies)
- Lack of emergency services: veterinarians cannot reach Island during non-operating hours (11:55 PM to 6:20 AM); lack of medical emergency service during these hours
- Lack of fire protection: no tax supported fire protection for the Island; fire department must call out ferry captain during non-operating hours to start up ferry for emergencies; delays mean loss of property and animals
- Fire insurance: 3 fires have occurred on Island in the last 4 months; insurance companies may be reluctant to sell insurance due to inadequate fire protection and delays in service; if insurance is provided, cost is likely to be high
- Fire insurance: activities such as agri-tourism require fire insurance; this may not be an option for Barnston Island farmers if they cannot get insurance
- Pedestrian and bicycle traffic slows ferry return trip times
- Ferry service has remained practically unchanged for decades; last upgrade was during 1970's when barge was enlarged to carry 6 vehicles from 3
- Physical improvements to ferry and ramps (estimated around $3 million) would make ferry safer but not increase hours of operation and resolve emergency access issues

5. Options for Improving Access for Agriculture

The current ferry system of a barge with a single loading ramp powered by a tug is at a similar level of service to that which has been provided by the Ministry of Transportation (MOT) for more than 60 years. The 1940's service level has been improved only to the extent of providing a moderately larger barge to accommodate more vehicles (from 3 vehicles to current 6). Many proposals have been made to improve the level of service over the years and promises made – virtually none have materialized.

There is a range of options that could substantially improve access to the Island for residents and farm business owners. The following four options have been identified as warranting further investigation as potentially feasible means to improve access to the Island for commercial agricultural businesses. Further investigation would include a preliminary assessment of costs and benefits. The provincial Ministry of Transportation is the responsible authority.

5.1 Upgrade Existing Ferry Service

This option involves maintaining the existing ferry barge service with minor modifications to the ferry schedule and upgrading of the access ramps at Port Kells and Barnston Island.

Pros:

- extending the service starting at 5:20 AM would help some farm operators, specifically the dairy business, to start milking and shipping earlier
- 1st hour of service would mostly accommodate farm business traffic, reducing waiting times and line-ups for commuters (including school bus) on later ferries
- improvement of ramp safety with ramp upgrading
- ferry ramp upgrade may be justified within MOT Marine Branch maintenance / terminal upgrade budget

Cons

- ferry capacity not substantially increased
- emergency access concerns not addressed
- larger trucks not accommodated
- drive on / back off configuration maintained with related safety concerns

5.2 Replace Existing Ferry With New (or Extended) Cable Ferry

This option involves replacing the existing barge / tug powered ferry with an overhead cable powered ferry using a new purpose-built ferry (80 –85 feet) or extending and modifying the existing ferry barge (59 feet) by 20 to 25 feet

Pros:

- larger capacity accommodates larger trucks
- drive on / drive off
- improvement of ramp safety with ramp upgrading
- 1 person crew would reduce operating costs
- ferry powered by electricity on overhead cable, reducing fuel costs
- ferry return trip time reduced, increasing number of trips & overall capacity

Cons:

- capital costs of new ferry / extending existing ferry
- operating costs may increase if federal Ministry of Transport requires 2 person crew
- additional maintenance costs of overhead cable system

5.3 Replace Existing Ferry With Alternate Ferry

This option would replace the existing ferry with another ferry that has a larger capacity and provides for drive on / drive off service. This option would also require major upgrading of the ramps on both sides to accommodate the larger ferry. With the construction of the new Fraser River bridge and several possible new bridges in the Interior, some ferries currently in service (owned by Translink or Ministry of Transportation) may become available in the medium term and could be re-located to the Barnston Island route.

Pros:

- capital costs of a used ferry would be less than for a new ferry
- larger capacity accommodating larger trucks
- drive on / drive off
- improvement of ramp safety with ramp upgrading

Cons

- costs of re-locating ferry from an Interior location
- ferry ownership issues if ferry not owned by MOT
- higher operating costs with larger crews
- significant costs to upgrade ferry ramps on mainland and island

5.4 Fixed Link Bridge

The option of a bridge with clearance distance of 60 to 90 feet over high water (as required by Fraser River Port Authority), would eliminate most of the access and safety issues with the ferry service but is at a significant capital cost.

Pros:

- direct and quick access with no gvw restriction for trucks
- 24 hour accessibility
- emergency access improved
- all disadvantages of ferry system eliminated
- reduction in annual operating costs now paid by MOT

Cons:

- high capital cost

- significant but unknown land area required for bridge approaches on mainland and island (Island side is in ALR)
- tax base with existing land uses cannot support the costs of a fixed link
- increased pressure for non-farm development

6. Comparable Levels Of Ferry Service

6.1 BC Gulf Islands (BC Ferries)

For comparative purposes, a selection of BC Ferries routes was examined for the Gulf Islands and Sunshine Coast, all of which have significant areas of land in the ALR. Some basic emergency services exist on most of these islands so emergency access is less of an issue. The ferry hours of operation and fares are summarized in Appendix 2. Of the 9 routes selected the average daily number of hours of operation is 14 compared to Barnston Island's 17.5 hours weekdays and 18.5 hours weekends. For the 9 routes examined, the average round trip cost for a vehicle and driver is $24.64 and for a 40 foot truck is $64.31. There is no cost for vehicles or passengers using the Barnston Island ferry (or other MOT managed ferries). Government has committed to not charging tolls for MOT managed inland ferries.

6.2 BC Interior Ferries (MOT)

The Interior ferries operated by private companies under contract with the Marine Branch of MOT have the following capacity and service hours:

Ferry	Auto equivalent (AEQ)	Hours of operation	Average hourly contract rate
Barnston Island	6 AEQ / 50 tonnes	17.5 M-T / 18.5 F-S	$105.
Needles Arrow Lake	30 AEQ	24	$107.
Harrop Procter	28 AEQ	24	$46.
Glade	8 AEQ	21.5	$49.
Adams Lake	8 AEQ	22	$48.
Arrow Park	24 AEQ	14.5	$65.

These 5 ferry services have an average of 21.2 operating hours per day, compared to the Barnston ferry at 17.5 hours weekdays and 18.5 hours on weekends. The Barnston Island and Needles ferries have the highest hourly operating costs because they require a 2 person crew compared with the other ferries that operate with 1 person crews. We have not compared the amount of traffic carried by these ferries with the traffic volume for Barnston Island.

7. Barnston Ferry Traffic Trends

MOT statistics for the operation of the Barnston Island ferry indicate some interesting trends in traffic to the Island. Based on statistics collected between 1998 and October 2004, automobile traffic to the Island has averaged 55,531 cars annually. The estimated volume of car traffic for 2004 is 55,436. Automobile traffic volume has remained roughly constant over the past 7 years.

Truck traffic statistics are available for 2000 to 2004. The average annual volume for trucks over the past 5 years is 2,046 with a peak occurring in 2004 at 2,318, 15% higher than the 5 year average. The highest monthly volume of trucks was recorded for November, 2004 with 341 transport and commercial trucks using the ferry. Overall, truck traffic to the Island has increased significantly over the past 5 years with a very significant increase in 2004, most of which is likely attributed to increased agricultural activity on the Island.

Statistics for pedestrian and cyclist traffic to the Island are available from 1998 to Sept. 2004. The data indicates the highest volume was in 1998 at 22,605 and the lowest volume in 2003 at 14,294. The 2004 volume for 9 months was 14,924. The current 2004 volume is estimated at 16,331 which is 11% lower than the previous 6 year average. Both walk on pedestrian and cyclist traffic to the Island has declined significantly over the past 6 years.

See Appendix 3 for statistical information on ferry traffic to Barnston Island.

8. Operational Improvements to the Ferry Service Suggested By Residents

The following operational improvements were suggested at the public meeting held by GVRD on Dec. 8th and in interviews with farm business owners. These suggestions are important to both farm business owners and residents of the Island. These suggested improvements should be addressed by the Ministry of Transportation and its contractor in the short term, regardless of what options are investigated or decisions taken to improve access to the Island.

1. Inconsistency in application of procedures and rules by different ferry crews; all crew members should be consistently applying the same procedures (e.g. size of load)
2. Notice for ferry shutdowns or re-scheduling for fueling and both major and minor maintenance and re-fitting should be posted clearly at the ferry terminals and well in advance of the proposed work so that residents can plan accordingly
3. Ferry should be fueled before (or after) scheduled runs start
4. School-bus should be given priority loading on the ferry in the afternoon, as it is for the morning run
5. Veterinarians (as well as doctors) should be given priority loading on the ferry to attend to ailing livestock on the Island
6. Complaints to Western Pacific Marine should be handled and responded to professionally and in a timely manner (complaints now ignored)
7. The state of repair of the ferry ramps is poor and there is an increasing likelihood of a serious accident with significant injury or loss of life; major improvements are needed
8. Congestion at Port Kells terminal area is increasing due to the new sawmill. Improvements are needed to:
   - separate sawmill traffic from ferry traffic;
   - prohibit tractor trailers from parking along the road near the ferry ramp (now a safety issue);
   - prohibit sawmill workers from using the ferry parking lot

   These issues need to be discussed with the District of Surrey as they involve municipal roads and traffic patterns.

APPENDIX 1
Barnston Island Farm Business Summary #1:

Avalon Dairies / Bradner Farms

Avalon Dairies Ltd. / Bradner Farms is a joint venture partnership between a privately owned farm business (Bradner) and dairy production and processing business (Avalon) that vertically integrates the production of feed, raising of cows, milk production, fluid and industrial milk processing and milk product wholesaling in the Fraser Valley. Avalon Dairies has been in continuous operation since 1906. Avalon Dairies and Bradner Farms sought out land for a new dairy operation on Barnston Island because of the following advantages:

- high quality and productivity of the soils,
- the ability to achieve 'quick' organic certification, and
- the central location close to its major market and processing facility in Vancouver.

COABC Organic certification was achieved in September 2002 for the Barnston property (owned and leased lands). The company started shipping milk from this location in August 2004. The company also ships milk for two other dairy farms on the island (about 100 cows). The company wishes to expand its herd and milk production more than threefold in the coming years. The company is also considering Barnston as a site for a new milk processing plant that would relocate its entire milk production from its current Vancouver location. The company opposes the exclusion of any ALR lands on the Island as it would jeopardize both its current operation and plans for expansion on the Island.

Area of land owned (Barnston Island): 55 acres

Area of land leased (Barnston Island): 115 acres –Burdett Properties Ltd. (Morrisroe)
80 acres – Devitt
70 acres – Uytedehaag
20 acres – GVRD
Total area leased on Island = 285 acres

Total Farm area (Barnston Island): 340 acres (185 acres leased are within ALR application area)

Total Farm area (Fraser Valley): 1050 acres, 1100 cows and heifer replacement stock

Recent farm investment: (Barnston Island) $4 million including $2.5 million for milk quota; $0.4 million for buildings (milking parlour); land improvements

No. of employees: 5 full-time on Barnston Island
48 total in all Fraser Valley operations

Current size of operation: 150 milking cows

Planned size of operation: 500 milking cows

Current Market: largest producer of organic fluid milk in Western Canada; ships as far East as Manitoba; as far North as Yukon; also produces cheese, ice cream and other milk products

Productivity: hay-lands on Island produce 4 to 5 cuts of quality hay per year without irrigation and use of chemical fertilizers; land can be worked earlier in spring and later in fall than all other Bradner Farms Fraser Valley locations, due to sandy soils; productivity exceeds other Bradner Farm properties in Delta, Langley, Abbotsford and Chilliwack

Expansion Plans: Expand the size of the dairy herd to 500 milking cows
Principals are looking for a Fraser Valley location for a new processing facility to handle processing for all Avalon dairy products (re-location from Vancouver location, 5805 Wales St.); are considering Barnston Island as an option; already purchased processing equipment from Smithers area

Ferry Access Issues:

- Hours of operation – currently milking 6:30 AM to 10:30 AM and 6:30 PM to 10:30 PM; would like longer ferry hours; specifically, would like earlier ferry service starting at 5:20 AM and also later on weekdays to 12:50 AM
- Maximum vehicle weight – currently 50 tonnes for ferry; 40 tonnes for ramps; ferry does not handle larger trucks, cattle haulers; would like larger ferry to handle 66 foot truck; current milk truck weighs 32 tonnes loaded
- Line-ups – current ferry size permits 1 dairy truck with no cars, leading to traffic line-ups at peak periods; Bradner Farms currently runs approx. 10 trucks a day (20 ferry trips) to Barnston
- Drive on / back off configuration – this is a time and safety issue of primary concern to trucks; would like drive on / drive off
- Ferry ramps – current wooden ramps are very narrow and slippery when frosty; there is a blind spot when backing off the ramp on Barnston side which is dangerous; ramps need to be upgraded to handle at least 50 tonnes gvw (operator has modified truck with rollers at rear so truck bumper does not scrape ramp when backing off at low tide)

APPENDIX 1 *continued*
Barnston Island Farm Businesses Summary #2:

Opus Cranberries Corporation (Joe Rogers)

Opus Cranberries Corporation is a privately owned company producing cranberries on lease-to-purchase land on Barnston Island. The farm also grows nursery stock, specifically cranberry vines that can be machine planted; this supplements income to the operation. The farm has been developed over the past 7 years, with 185 acres now planted to cranberries, and is developing a further 15 acres for planting. This year 79 acres of cranberries were harvested. Next year it is anticipated that 185 acres of cranberries will be harvested.

The company principal searched the Fraser Valley for suitable lands to grow cranberries. The land on Barnston Island was chosen because its soils are similar to soils north of the Fraser River in Pitt Meadows, some of which are in cranberry production. When the farm was initially planted in cranberries, the soil condition was poor due to previous lack of management. Significant investments were made to the land to provide drainage; to remove weeds; to obtain FREMP approvals for water access and water discharge; the installation of extensive water systems for frost protection, irrigation and harvest flooding; and to lower soil ph to 4.5. With 7 years of development and a $17 million investment the land is now producing a good crop of cranberries at a reasonable return on investment. At the current market price for cranberries, the farm operation on the Island is profitable and viable. The operator expects the business to increase its profitability, subject of course to the market price for berries, proportionate with the continued increase in annual production as the cranberry vines reach maturity. Cranberry vine maturity occurs over several years. Expected mature production is expected to reach 5 million pounds from 200 producing acres.

The principal of the company maintains the soils have good agricultural capability for a wide range of crops and are particularly well suited to cranberries. He is interested in expanding the operation, if lands become available for purchase at a price that reflects their agricultural value. The company has additional production acreage allocation available for expansion in its contract with Ocean Spray. The existing ferry service is considered to be sufficient as is, to meet the company's current needs.

Area of land owned (Barnston Island): all land under lease to purchase

Area of land leased: 260 +/- acres under lease to Jan. 2009 with fixed purchase price

Total Farm area (Barnston Island): 260 +/- acres; 185 acres planted in cranberries with 15 acres in development for planting.

Recent farm investment on Barnston Island: $17 million development costs over 6-7 years

No. of employees: 6 (farm manager and 5 farm workers)

Current size of operation: 2004 – 7,200 barrels or 720,000 pounds (18 truck loads)

Mature size of operation: 2009 – 50,000 barrels or 5 million pounds (125 truck loads)

Current Market: Currently ship to Ocean Spray; opportunity to ship to other wholesalers such as Lucerne; also sell wholesale nursery stock (cranberry vines)

Ferry Access Issues:

- The existing ferry service is fundamentally adequate for the current farm business needs
- Drive on / back off configuration – this is a time and safety issue for truck drivers; a priority for this operation to have drive on / drive off
- Maximum vehicle weight –ferry handles current truck now being used ; current truck is 40 +/- feet long; larger ferry capacity would be helpful when operation is at full production
- Ferry ramps - currently maximum ramp capacity at 40 tonnes limits truck size/weight; ramps could be improved (e.g. replace wood decking with concrete)
- Hours of operation – current hours of operation are adequate; farm business owner is neutral on schedule adjustments that would provide earlier sailings starting at 5:20 AM

APPENDIX 1 *continued*
Barnston Island Farm Business Summary #3:

Barnston Island Herbs (Peter Hoffmann)

Barnston Island Herbs is a privately owned company producing fresh herbs for the Vancouver area restaurant market on 10 acres of land on Barnston Island. Fresh herbs are produced year-round in greenhouses on less than 3 acres of the property. The herbs are picked, cleaned and packaged daily for delivery. Two refrigerated trucks deliver orders departing at 7:15 AM as the drivers arrive with the first ferry in the morning. For every ½ hour delayed departure in the morning, it adds 1½ hours to the return trip due to increased traffic later in the day.

As these are small trucks (under 5,000 kilos), ferry weight restrictions and capacity are not a major constraint for this operation. The operation does require delivery of supplies (e.g. peat moss) in larger trucks which are limited to sailings at high tide as trucks scrape the ramp at low tide.

The ferry service severely limits labour availability for the operation; this is a significant constraint to expanding the business on the Island as all workers live off-island. This is the owner's chief concern related to the ferries.

Area of land owned (Barnston Island): 10 acres

Area of land leased: 0

Recent farm investment: $10,000 spent on water system (wells, filter system, chlorination)
$7,000 on greenhouse replacement
$12,000 on electrical generator for backup power

Other Farm area (South Surrey): 22 acres (field crops)

No. of employees (Barnston farm): 12 year round plus 4 seasonal

Current size of operation: approximately $350,000 gross income on 3 acres developed land

Expansion plans: modest plans to expand; chief limiting factor is availability of labour

Current Market: main market is the restaurant trade in the Greater Vancouver area; secondary markets are Victoria and Whistler and some retail stores (1 truck weekly)

Ferry Access Issues:

- Ferry limits accessibility by staff who live off island; hiring new staff is extremely difficult with the current ferry service
- Safety of employees; costs / time for emergency services
- Costs to business with ferry delays: early morning line-up; heavy trucks limited to high tide (due to ramps); ferry delays due to tug engine breakdowns, mechanical breakdowns, other river traffic, winter ice etc.
- Metal mesh on wooden ramps has caused as many as 5 flat tires on delivery truck in 1 week
- Generally ferry service increases costs to business; operator would like 24 hour ferry service or a bridge and would consider contributing to the costs of a fixed link

APPENDIX 1 *continued*
Barnston Island Farm Business Summary #4:

Painted River Farm (Gilmore family)

The Gilmore family farm is a cattle operation that raises natural beef from breeding to market. It also includes hay sales and horse boarding. Packaged beef is sold in sides and quarters from the farm through direct sales. About 80% of production is sold to Fraser Valley Sales in Langley and other cattle wholesalers. The farm was certified by SPCA in June 2004 for humanely raised beef following five essential freedoms or criteria. Its products are marketed as 'all natural beef'.

The operation lost 2 of 3 barns, much of its equipment and one of two breeding bulls in August, 2004 as the result of an arson fire set late at night during the time the ferry is shut-down. Following the fire, the Gilmores reduced their herd size and are currently considering their options to maintain or expand the size of their operation.

The Gilmores believe that a larger ferry is not a solution and that access can best be improved by the construction of a bridge to the Island. They are also of the opinion that access should not be the principle issue in determining whether the lands are capable of and suitable for agricultural purposes.

Area of land owned (Barnston Island): 130 acres

Area of land leased: 70 – 100 acres

Recent farm investment: barn built 9 years ago; recent (last 5 years) equipment purchases including tractors, bailer and bail wagon (lost in August, 2004 fire); recent silage bunker improvement

No. of employees: 3 employees (family members) plus additional part-time

Current size of operation: August 2004: 75 – 80 cows, 8 horses
December 2004: 29 cows, 30 calves, 3 horses
Hay sales of 10,000 square bales per year

Expansion plans: Breeding bull lost in August 2004 fire will be replaced
Other expansion plans uncertain

Current Market: 20% of beef direct farm sales
80% of beef to wholesalers

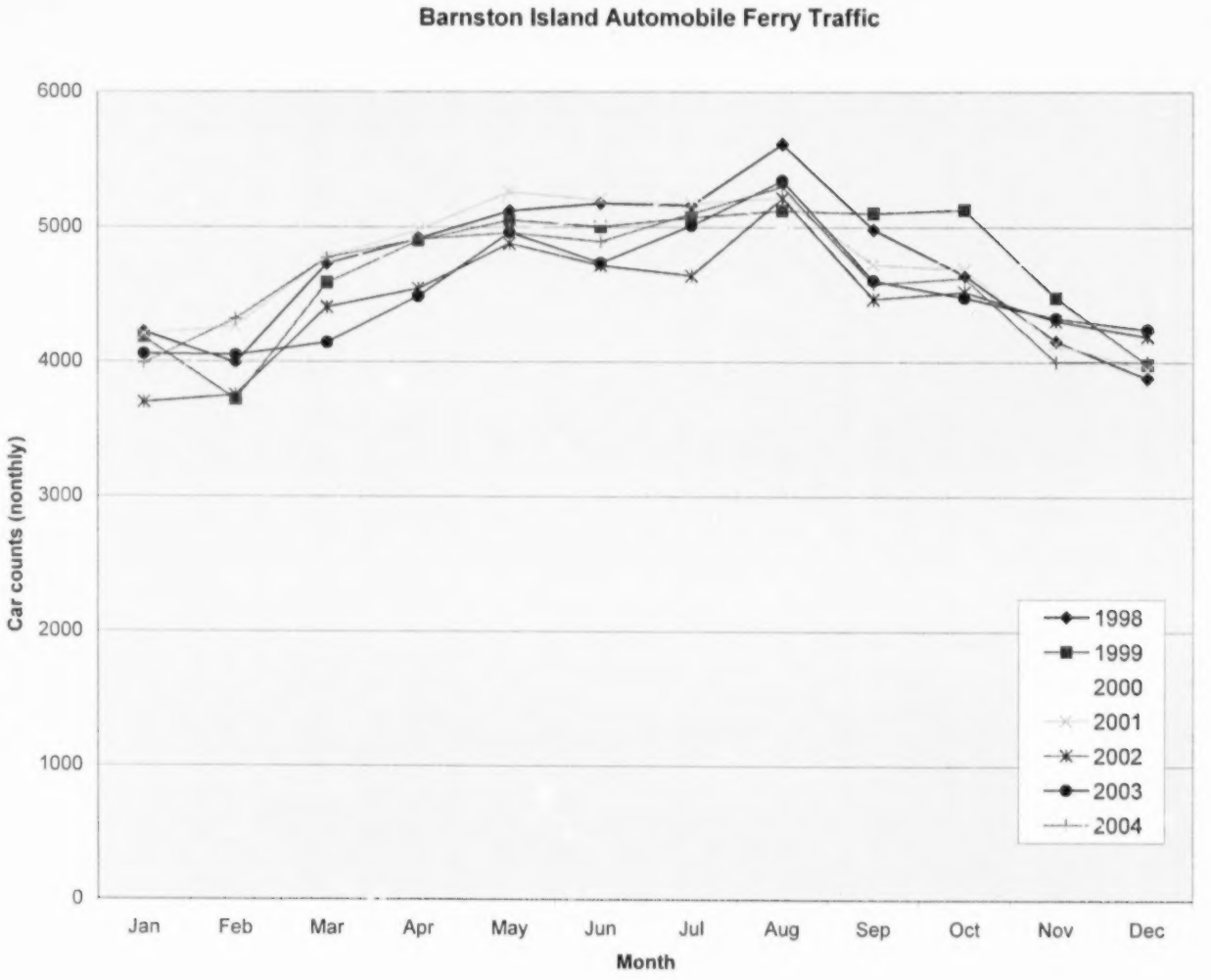
Ferry Access Issues:

- Ferry capacity: ferry cannot accommodate a 57 foot truck and trailer for hauling cattle; need to do multiple loads
- Cattle spend longer in the truck, with greater potential for stress
- Cattle can 'go down' in the truck when truck backs on the ferry with resulting possible loss of the animal
- Deliveries for supplies (feed, chicken manure, sawdust, concrete, gravel etc.) have $20 - $30 premium per load because of the ferry
- Ferry ramps: trucks with trailers, horse trailers etc. bottom out on ramps while driving and backing on/off the ferry, particularly at low tide
- Ramp safety: lack of railings on ramp (island side); trucks and campers have gone off ramp; backing off ramp is dangerous, more so for trucks with limited visibility
- Back on / back off configuration: many customers will not come to Island because of ferry and ramps (perceived waits and dangerous ramps); 50% responding to ads recently did not want to drive to Barnston to pick up product
- Breeding stallion on the Island not an option with ferry service; customers do not want to risk transporting horses on the ferry
- Ferry delays caused by mechanical breakdowns, maintenance (routine and other), industrial and fish boat river traffic (delays add to costs of deliveries and supplies)
- Lack of emergency services: veterinarians cannot reach Island during non-operating hours (11:55 PM to 6:20 AM); lack of medical emergency service during these hours
- Lack of fire protection: no tax supported fire protection for the Island; fire department must call out ferry captain during non-operating hours to start up ferry for emergencies; delays mean loss of property and animals
- Fire insurance: 3 fires have occurred on Island in the last 4 months; insurance companies may be reluctant to sell insurance due to inadequate fire protection and delays in service; if insurance is provided, cost is likely to be high
- Fire insurance: activities such as agri-tourism require fire insurance; this may not be an option for Barnston Island farmers if they cannot get insurance
- Pedestrian and bicycle traffic slows ferry return trip times
- Ferry service has remained almost unchanged for decades; last upgrade was during 1970's when barge was enlarged to carry 6 vehicles from 3
- Physical improvements to the ferry and ramps (estimated around $3 million) would make ferry safer but not increase hours of operation and resolve emergency access issues

APPENDIX 2
Hours of Operation / Fares – BC Ferries

ROUTE	SCHEDULE	HOURS PER DAY	VEHICLE & DRIVER $	TRUCK TO 20 FEET $	$PER FOOT >20 FEET
Campbell River-Quadra Is.	6:30 am to 10:30 pm m/f; to 11:30 s/s	16 weekdays 17 weekends	$19.00	$25.75	$1.05
Quadra Is. – Cortez Is.	9:05 am to 6:45 pm	9.7	$23.00	$35.50	$1.45
Denman Is. – Hornby Is.	7:45 am to 6:35 pm	11	$18.75	$24.50	$.95
Buckley Bay - Denman Is.	7:00 am to 11:00 pm	16	$18.75	$24.50	$.95
Mayne Is. – Tssawwassen	8:00 am to 8:15 pm	12	$25.50	$36.75	$1.85
Mayne Is. – Victoria	7:20 am to 8:40 pm	13	$31.25	$41.75	$1.90
Horseshoe Bay – Langdale	7:20 am to 9:15 pm	14	$37.25	$62.25	$2.70
Nanaimo to Gabriola Is.	6:15 am to 10:55 pm	17	$21.25	$31:00	$.80
Horseshoe Bay – Bowen Is.	5:35 am to 10:05 pm	16.5	$27.00	$31.75	$1.60

Appendix 3 – Ferry Traffic Statistical Information For Barnston Island



Appendix 3 – Ferry Traffic Statistical Information For Barnston Island